In writing names of chemicals the conventional plan of writing all the parts of a name together—*e.g.* "acetylbenzoylaconine"—is sometimes adopted; at other times they are separated by hyphens, as in "Para-hydroxy-phenyl-ethylamine"; but occasionally they are disconnected completely, as in "Benzoyl Ecgonin."

The defects of the book are, unfortunately, not limited to matters of arrangement and nomenclature. Thus the jaborandi alkaloids are wrongly grouped with the derivatives of pyridine, and the attributions in some other groups are doubtful, whilst the alkaloids of physostigma and anhalonium should not be described as "of unknown composition." In the section relating to solanaceous alkaloids the information is given that "hyoscin, which was formerly reported as a naturally occurring constituent of henbane, has now been virtually relegated to oblivion." In spite of this it is resurrected four pages further on in the curious form "Scopolamin, hydrobromate (Hyosin)," and is apparently reconsigned to oblivion, since it fails to appear in the section devoted to scopolamine. Though *Hyoscyamus muticus* has probably been the chief source of atropine for more than twenty years, the only reference to it is as follows: "*Hyoscyamus muticus* is often offered for import as true *H. niger*." Cotarnine, in spite of its importance in medicine, is not mentioned, though each of the minor alkaloids of opium has a paragraph to itself.

The resin of podophyllum is described as containing both podophyllotoxin and picropodophyllin, whereas only the former is present, the latter being an isomeride formed by the action of alkalis. The section on Indian gum may include all that is known about this commodity in the United States, but it is misleading as regards the sources and character of this gum as it appears in European markets. In the portion relating to resins no attempt is made to deal critically with the numerous doubtful data published regarding the chemistry of these products; thus the formula $C_{20}H_{40}O_2$ is assigned to abietic acid, though it is described as containing hydroxyl, and is presumably a hydroxy-acid, while sandaracolic acid is mentioned as a constituent of sandarac, though the author of this acid withdrew it years ago.

Enough has perhaps been said to show that Mr. Fuller's book should be used with discretion. As it deals with nearly everything, including chewing gum, that has been used or can be regarded as a drug, and gives references copiously, it is at least a useful guide to the all too voluminous literature on the analysis of these products, though even in this respect it would be improved if the index were more complete and always strictly alphabetical. T. A. H.

South African and Indian Floras.

(1) *An Introduction to the Flora of Natal and Zululand.* By Prof. J. W. Bews. Pp. vi+248. (Pietermaritzburg: City Printing Works; London: Wheldon and Wesley, Ltd., 1921.) 15*s*.

(2) *The Flora of the Nilgiri and Pulney Hill-Tops.* By Prof. P. F. Fyson. Vol. 3. Pp. xviii+581. (Madras: Government Press, 1920.) 15 rupees 6 annas.

(1) THE volume by Dr. Bews, who is professor of botany in the Natal University College, Pietermaritzburg, was written mainly for the purpose of assisting students of plant ecology and those engaged in botanical survey work in Natal. The flora of that country received for many years the devoted attention of the late Dr. J. Medley Wood, who published among several other works a "Handbook to the Flora of Natal" in 1907, and a "Revised List of the Flora of Natal" in 1908, to the latter of which two supplements were issued. The Handbook is now out of print, and the Revised List is not easy to procure, while both are incomplete. Dr. Bews's work, therefore, supplies a need and will be welcomed. It contains 478 species of flowering plants that are not included in Wood's Revised List. Like Wood's Handbook it gives keys to the families and genera, short descriptions of the former, and enumerations of the species, with a few words on their distribution and here and there a native name; the Cryptogams are excluded entirely.

A very important omission from both Dr. Wood's Handbook and Dr. Bews's Flora is some means for the identification of the species. We realise that to have provided keys to the species would have increased the size of the volumes very considerably, but it would have made them infinitely more useful. Some of the Natal genera are rich in species; Panicum has 35, Schizoglossum 41, Indigofera 44, Crassula 49, Senecio 84, while Helichrysum has as many as 92. With the best of keys it is difficult to determine the specific name of a plant belonging to any large genus, but Dr. Bews affords no help at all in the matter.

While Dr. Bews's book will no doubt be of service to those for whom it was chiefly intended, it does not go far enough. Much had already been done on the plants of Natal, and it might reasonably have been thought that the time had come when a work of more general usefulness could have been produced. It may be mentioned that Dr. Bews has arranged the families in his book according to Engler and Prantl's system, and that he has followed the practice observed by zoologists generally and by certain botanists of using a small initial letter for all specific names.

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(2) Volumes 1 and 2 of Prof. Fyson's work were published in 1915, and were reviewed in Nature, vol. 96 (February 3, 1916), p. 615. These dealt with the flowering plants found above an elevation of 6500 feet around the hill-stations of Ootacamund, Kotagiri, and Kodaikanal. The present volume is supplementary, and includes the plants of the country around Coonoor above an elevation of 5000 feet.

The numerous outline drawings are an important feature in this volume as well as in the preceding; they certainly add considerably to the usefulness of the work, though, as they are full-page size, they have rendered it rather bulky and expensive. Notwithstanding that the text is in large, much leaded type it fills only 154 of the 599 pages in vol. 3; the other pages are used for the illustrations. These might have been reduced in size and the text might have been in smaller, less spaced type. By these means the matter in the three volumes could have been compressed into one. An admirable model might have been found in the late Colonel Sir Henry Collett's "Flora Simlensis." In Prof. Fyson's Flora we have another instance of the use of a small initial letter for all specific names. Whether this method of dealing with such names is advisable or not seems to be a matter of opinion; it has recently received some attention in the *Journal of Botany* (1921, pp. 159, 295-296).

Some additions and emendations in the volume under notice have been necessitated by the publication of Mr. J. S. Gamble's "Flora of the Presidency of Madras," of which the fourth part, carrying the work as far as the beginning of the Ebenaceae, appeared last August—too recent, therefore, for Prof. Fyson to have derived any assistance from it. He has been able to use Mr. Gamble's work only as far as the end of the Caprifoliaceae. It is probable, therefore, that the families from the Rubiaceae to the end will need some revisional treatment by Prof. Fyson, in order to bring his work into agreement with one that will be recognised for a long time to come as the authoritative Flora of Madras.

Science of Industrial Psychology

The Psychology of Industry. By Dr. J. Drever. Pp. xi + 148. (London: Methuen and Co., Ltd., 1921.) 5*s*. net.

Industrial Fatigue and Efficiency. By Dr. H. M. Vernon. (Efficiency Books.) Pp. viii + 264. (London: G. Routledge and Sons, Ltd., 1921.) 12*s*. 6*d*. net.

TWO entirely different methods of approaching the science of industrial psychology are represented by the two volumes under notice. Dr. Drever's book is an attempt to cover the whole field of industrial psychology, and to accomplish such a task in a book of 148 pages must lay itself open to the charge of being somewhat superficial. He devotes a short chapter to each of the sub-divisions of the science, and quotes, in a not too critical spirit, certain well-known experiments which have been carried out. These examples are mostly taken from the writings of American efficiency engineers, and, interesting as they may be, they are not sufficient to form the foundation of a whole science. They must be submitted to a much more critical examination than Dr. Drever gives them if they are to form even part of the subject-matter of the science at all.

Dr. Vernon's book is of a very different type. Its object is not to write an introduction to a science which at present is so young that any such attempt must concern itself mostly with saying what can be accomplished, rather than what has already been done. His book is an attempt to deal with one aspect of the science and concerns itself more with facts than theories, and for this reason alone is far more scientific than Dr. Drever's book. In his preface Dr. Vernon says, "I have not attempted to discuss scientific management for I have no first-hand knowledge of it, and, moreover, the subject is so large a one that it needs independent treatment. For similar reasons I have not attempted to deal with Vocational Selection in industry." This passage is really the keynote to the whole book, for although the author quotes copiously from the works of other writers in the same field, yet his main argument depends on the first-hand information which he and his colleagues have collected from the various factories they have visited. Throughout the reader feels himself in touch with reality rather than in the somewhat theoretic atmosphere prevailing in Dr. Drever's book.

It is true that Dr. Drever's object is somewhat different from that of Dr. Vernon, for he tells us that the book was written primarily to awake interest in the ordinary man, and so help to spread knowledge of the service psychology can render to industry. Even so it may be doubted whether it is wise to spread knowledge in the way Dr. Drever has done. Those who are working in this field of applied science have two great practical difficulties with which to contend. One is the ignorance or antipathy of the ordinary man as to the possibility that physiology or psychology can render any appreciable services to the problems of industry, and the other is that he sometimes expects great results with comparatively little effort on the part of the scientific worker. Dr. Drever's book undoubtedly does much to remove the first difficulty, but in so doing it does a great deal toi ncrease the second.

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